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## PUBLICATIONS

OF THE

Massachusetts Society for Promoting Agriculture

# AN ESSAY

ON

"The Preservation of Roadside Trees and the Improvement of Public Grounds."

DELIVERED IN THE FARMERS' MEETING COURSE IN BOSTON,
BY JAMES DRAPER, A MEMBER OF THE WORCESTER
PARKS COMMISSION.

"Woodman, spare that tree;
Touch not a single bough;
In youth it sheltered me,
And I'll protect it now.
'Twas my forefather's hand
That placed it near his cot;
There, Woodman, let it stand,
Thy axe shall harm it not."

The incident that gave thought to the poem of which the above is the opening stanza is familiar to many; yet in a word I will allude to it as emphasizing the importance of considering and acting upon the problem suggested as the topic of our discussion, "The Preservation of Road-side Trees," etc.

In the year 1837 George P. Morris, of New York, while driving with a friend along the lane that led to his early home in that portion of New York City know as Bloomingdale, discovered a man with axe in hand, about to fell to the ground an aged and noble oak that had been planted by his grandfather, before he was born, and under whose shade, for many years, with parents and sisters, he had spent many happy hours.

Touched to the heart at the thought of the demolition of this historic tree, he first tried to persuade the owner to desist from his purpose, without avail, and then he negotiated with him, on the payment of a sum equal in value to the wood and timber the tree would make, and going into the old homestead, he took paper, drew up a bond for him to sign, stipulating that as long as the property remained in his possession, or that of his family, that "old oak" should never be disturbed.

That this feeling of veneration for these noble roadside trees has not died out is evinced by the interest taken by those lovers of trees who have been instrumental in securing a legislative enactment for the preservation of roadside trees in this state.

The law as it now stands is as follows:

"Chapter 196 of the Acts of 1890, as amended by chapter 49 of the Acts of 1891 and chapter 147 of the Acts of 1892. "Section 1. The mayor and aldermen of cities and the selectmen of towns within the Commonwealth are hereby authorized to designate and preserve, as hereinafter provided in this act, trees within the limits of the highways for the purposes of ornament and shade; and to so designate not less than one such tree in every thirty-three feet where such trees are growing and are of a diameter

of one inch or more.

Said mayor and aldermen and selectmen shall, at such "SECT. 2. seasons of the year as they deem proper, designate such trees as are selected by them for the purposes set forth in this act, by driving into the same, at a point not less than four nor more than six feet from the ground and on the side towards the centre of the highway, a nail or spike with a head with the letter M plainly impressed upon it; said nails and spikes to be procured and furnished by the secretary of the state board of agriculture to said mayor and aldermen and selectmen as required by them for the purposes of this act. Said mayor and aldermen and selectmen, at such seasons of the year as they deem proper, shall renew such of said nails and spikes as shall have been destroyed or defaced; and shall also designate, in the same manner as hereinbefore stated, such other trees as in their judgment should be so designated to carry out the requirements of this act.

"Sect. 3. Whoever wantonly injures, defaces or destroys any tree thus designated, or any of said nails or spikes affixed to such trees, shall forfeit not less than five nor more than one hundred dollars, to be recovered by complaint, one-half to the complainant and one-half to the use of the town wherein the offence was com-

mitted.

"Sect. 4. This act shall not apply to ornamental or shade trees whose preservation is now provided for by chapter fifty-four of the

Public Statutes and the acts amendatory thereof."

The requisite nails or spikes have been procured by the secretary of the Board of Agriculture, and he is now prepared to furnish them, on request of selectmen of towns or mayor and aldermen of cities, for the purposes set forth in the act above mentioned.

I am aware that action has been taken but in a very few instances as yet by the town or city officials in carrying out the provisons of this act. It seems to me that it is of the highest importance that the initative steps in this work be taken at once by defining some uniform method of procedure and to designate what varieties of trees it is most desirable to have preserved, and where, within these roadside limits, the same will be best protected from injury.

The new law clearly defines the proper authorities entrusted with this work. The Board of Selectmen in the several towns, and in the case of our cities the Parks Commission, would seem to me to

be the proper authorities.

#### WHAT TREES TO PRESERVE.

The white oak, American white beech, rock or sugar maples, American white elm (when space is ample), and American white ash seem to me to be the most desirable.

The objection to the red oak and basswood or linden is their susceptibility to the attack of the borer; the poplars and white or red maples, their liability to injury or wreekage by ice storms. The red or slippery elm, if discovered by traveling man or boy will not escape the robbing of its bark, and the chestnut and walnut become the victims of severe clubbing and injury to their trunks, by pounding without mercy to induce a few stray nuts to leave their snug quarters before being ordered out by the autumnal frosts.

#### LOCATION OF TREES.

But two positions can safely be agreed upon in the roadside preservation of trees. Either they must be in close proximity to the boundary wall or fence, or far enough distant therefrom to allow a foot-walk six or more feet between the trees selected and the boun-

dary line.

While this should apply to the trees of smaller dimensions which are to be designated for preservation, in the instance of an occasional tree which may be found between these lines, that have reached nearly to their maximum height and breadth, the owners of adjacent land would do honor to themselves and confer blessings upon posterity by giving to the highway sufficient land to allow a footwalk on one side and an ample road-bed in the line of travel on the other, so that these noble "sons of the forest" may be fully preserved.

Whenever the tree to be preserved can be found standing close to the boundary lines, the chances of its being left undisturbed are far greater than those six feet or more distant therefrom when they so often become hitching-posts for careless and thoughtless drivers, or the victims of barbarous treatment at the hands of road repairers with their death-dealing road machines or ploughs or scrapers.

While we have alluded thus far only to such roadside trees as have sprung up as by chance, and have now reached sufficient size to be designated for permanent preservation, it may not be out of place to note the plans adopted by the Worcester Parks Commission in the planting of shade trees on the city thoroughfares or highways

in the suburbs.

In the city proper no trees are planted until the grades of the streets have been permanently established by the city engineer and the curbstones placed in their permanent position.

They are planted eight inches inside the curb, and distant from

each other from thirty-five to forty feet.

Where trees have been planted under these directions outside the curbstone limit by private individuals, they recommend a distance of forty to fifty feet, and within one foot of the wall or fence, or either six or seven feet distant therefrom, being governed somewhat by the width of the highway where the trees are planted.

While this work of planting shade trees has been carried on very successfully by the Commission for many years, and over ten thousand trees are now growing in a thriving condition, their greatest care and anxiety now is their preservation from injury by reckless drivers of all kinds of vehicles, and their utilization as hitching-posts for horses by those of whom better things should be expected.

To the credit of the irrepressible small boy who has to bear such a liberal share of denunciation in these matters, be it said, that the injury from sharp-edged tools in their hands is very meagre in comparison with the destruction wrought by the teeth of hungry horses. Tree-guards of the strongest construction which are from seven to eight feet in height are found of little avail where a hungry horse is bent on a meal of the tender growth of a thrifty sugar or Norway maple.

While the destruction of the more recently planted trees is trying in the extreme, the reckless mutilation of road-side trees outside the city limits by the employes of the several telegraph and telephone companies overshadows every other line of destruction.

Some of the finest oaks, elms and maples, along the routes occupied by these corporations' wires have been mutilated and disfigured beyond measure, while some specimens have been so nearly ruined that they can never be restored to any degree of symmetry. And what is the remedy? These companies have acquired their franchise without cost, by the simple application to City Council or Board of Selectmen, for leave to locate their poles along certain thoroughfares. This privilege does not carry with it the right to destroy a single tree that may come in their way, yet the employes invariably get in their deathly work before they are discovered, and their would be prosecutors are unable to bring them to justice.

There is room enough in the world both for the trees and the wires; but as trees do not root in the air, they must take the lower strata in the premises, while the telegraph companies by using fifty and sixty feet poles instead of those only thirty to thirty-five feet in height, can carry their wires well above the tops of the average shade or roadside trees without injury. Any branches to the tree that will interfere with the wire of that height can safely be removed without any injury to the tree or disfigurement to their symmetrical proportions, excepting, however, the gigantic elms and oaks, when it would be impracticable. In such cases the use of insulated wires will overcome the difficulty. United and decisive action on the part of the city and town officials, demanding the reconstruction of their lines on higher poles, alone will prove the remedy.

While much has been done of late in this embellishment of our streets and roadsides with shade trees, we have but comparatively few drives of any great length that have become prominent for their shade attractiveness, that are the results of the labor of our public-

spirited and tree-loving citizens, thirty or forty years ago.

In my own city, and I refer to it as some of you are familiar with the situation, I recall nothing more beautiful and effective in the way of roadside ornamentation than the double rows of magnificent Norway maples that over-arch Lovell street, southerly from May street, which were planted by our esteemed fellow-citizen, O B. Hadwen. A short section of May street west of June street speaks words of living praise for the labor of the Hartshorn family in the planting of sugar maples, while a long stretch on the Grafton road planted with the American white ash, perpetuates the memory of the late Darius Rice.

We take much pride in many small groups of trees and some magnificent single specimens that adorn the homes and roadsides of our rural citizens, but we cannot point to a single mile of continuous shade upon any suburban road, from trees of twenty-five or more years of age. It is to encourage this roadside embellishment by the preservation and planting of suitable shade trees upon the treeless roads that has prompted the consideration of this subject to-day.

While I have been greatly impressed with the grandeur and sublimity of the natural scenery of the country that it has been my privilege to visit and gaze upon, I still hold in high veneration those marked features of the landscape where the work of nature has been supplemented by the hand of man in the laying out of

broad avenues and the planting of roadside trees.

What is it that most impresses the visitor to our rural town of Lancaster? Nothing more nor less than its broad central avenues overarched with stately elms, planted early in the present century.

The town of Shrewsbury will ever revere the name of Harlow and Hapgood, who, when in the prime of life, erected their own monument by the planting of those rows of sugar maples that now attract the attention of every lover of nature. "Yea, verily they

cease from their labors but their works do follow them."

While our State has many towns whose shade trees have made them famous and attractive, the work of street embellishment in Washington City, is not only of special interest but of great magnitude. During a period of ten years, over 20,000 shade trees were planted on the streets and avenues, and as many more in the parks and reservations. What impresses one most in their method of planting is the large variety of trees that have been utilized. The climate in that locality allows the utilization of many trees that are not indigenous to this New England climate. Certain avenues are planted exclusively with one variety of trees, and the effect is most pleasing. The perfectly formed and evenly rounded head of the sugar or Norway maples on certain avenues, while the more spreading silver maple type characterizes another. American linden furnishes another type of symmetrical and finely formed trees. The tulip or white wood is clean and shapely, while the gingko or maiden hair, furnishes a peculiarly striking foliage The elms are used in some cases that attracts much attention. where space will allow. The Carolina poplar and Negundo maples were planted largely at first, but proved very unsatisfactory after a few years; the Negundo becoming badly infested with insects, and the poplar becoming sadly disfigured by breakage.

The city of Boston has completed a broad avenue several miles in length from the city proper to "Chestnut Hill Reservoir," in Brookline, that is unequalled by any drive in this section of the country. Its distinctive features are its generous width, 200 feet most of the distance, the location of the double tracks of the electric railroad system in the center of the avenue, and on either side of these tracks rows of shade trees are planted, while the surface of the ground is well turfed with grass. An equestrian drive comes next to the railroad location, while a broad, thoroughly constructed

roadbed is located on each side of the avenue for carriages. Broad sidewalks are located between the carriage drives and the boundary line, and here again rows of trees are planted, the whole forming a grand colonnade with four rows of trees the entire length.

This is Boston's great pleasure drive of which she feels justly

proud.

Cannot other cities hope to possess even in a small measure such

grand features in their system of roads or pleasure drives?

In my journey through California a few years ago I was impressed with the interest taken there in this roadside tree planting. We found at San Jose a broad avenue called the "Alameda," leading to Santa Clara three miles distant, with a double row of poplars and willows. These were planted by Jesuit missionaries over one hundred years ago, and, although we cannot approve the selection of trees for durability, they are entitled to the honor of being the pioneers in tree planting on the Pacific Coast. At Riverside in Southern California may be found one avenue, the Magnolia, which is nine miles in length, and planted the entire distance with huge palm trees on each side, and a row of pepper trees in the centre.

In another town, Pomona by name, the leading attraction is a broad avenue planted with two rows of cypress trees, and two of

the Eucalyptus, which make a most charming effect.

These are but a few of many illustrations; time will not allow

the mentioning of more.

In considering the question of the improvement of public grounds, it is not my purpose to touch upon the work of the landscape gardener or the laying out and embellishment of public parks, but to advocate a certain line of improvement that would not come under their province. I refer to the land, coming within the boundary limits of our highway as well as that of school-house grounds. was my privilege a few years ago, as the executive officer of the Massachusetts State Grange, to recommend the observance, by the subordinate granges of the state, of a fixed day in the early part of the month of May as Arbor Day; and in addition to the planting of fruit and ornamental trees around the home, and trees for shade and shelter along the roadsides, I urged the importance of cleaning the grounds around the buildings and along the roadsides of all useless underbrush, stones, stumps or any other unsightly objects, and then grade the same and seed it down to grass. It is gratifying to note how much interest was manifested in this work in many towns, and what great improvements were made through this united, as well as individual, effort.

I am aware that many will assert that this kind of work does not pay or that the activities of farming life will not allow time for any such improvements. No one would urge any neglect of their duties that at many seasons of the year become imperative, but there are many broken days or partially rainy days in the course of the year, and even between the busy seasons, that can be de-

voted to this work if one is so disposed.

Have this roadside improvement as one object in view that shall have a few days' attention every year, and in ten years from now the suburban roads of this state would show a most wonderful and pleasing transformation.

"Will this work be appreciated?" may be asked. There certainly is no negative answer to this question. The number of owners of teams for pleasure driving is increasing largely every year. This driving is not confined to our busy thoroughfares, or the main roads that have been sacrificed to the traffic of the horse or electric railway systems. These are being largely avoided and resort is taken to the rural drives, of which no state can boast of more charming ones, or a grander or more diversified landscape.

It appears from the early records of my native city of Worcester, that in the year 1783 an ordinance was passed by the town as fol-

lows :-

"Whereas, a number of persons have manifested a disposition to set out trees for shade, near the meeting house and elsewhere about the town, and the town being very desirous of encouraging such a measure, which will be beneficial as well as ornamental, voted—that any person being an inhabitant of this town who shall injure or destroy such trees so set out shall pay a fine not exceeding twenty shillings for every offense, to the use of the poor."

The attention given to street ornamentation, inaugurated over a century ago, continued in later years by men who were the founders and promoters of the Worcester County Horticultural Society, the Lincoln family for three generations most prominent of all, has given us for enjoyment the refreshing shade of our Common and

the streets in the immediate vicinity.

The authorities in charge of the highways in the cities and towns are doing more each year to improve the roadbeds in every direction. It now remains for the owners of land bordering on these highways to supplement this work by improvement of the roadside, the planting and preservation of our shade-trees, and thus add to the attractiveness, enjoyment and general prosperity of an appreciative community.

Some of our railroad corporations are setting us a good example in the way they are utilizing the vacant land around the stations by planting trees, vines and shrubs in a most attractive manner, and the travelling public are certainly enjoying the grand improvement.

In the matter of -

### SCHOOL-HOUSE GROUNDS

a few suggestions may be offered, as it comes within the province

of the question under consideration.

The suggestions made for Arbor Day observance, already alluded to, while intended more especially for the towns in the State where Granges were organized, found no heartier support than in my own city. It was very gratifying to me to be invited to address a meeting of the school teachers of Worcester upon this subject, giving hints and suggestions that might aid them in their work. It was still more pleasing to note the interest taken by so many of the teachers and scholars in the initiative work of planting the shade-trees, vines and shrubs within so many of the schoolyard enclosures in this city.

The predictions of those who doubted the expediency of such an



undertaking, and predicted the certain demolition of every vestige of plant-life, the first season, have not proved true, but on the other hand, those trees and shrubs that the pupils had planted with their own hands, or had secured by their own efforts either by purchase, solicitation or contribution, were guarded with a care and interest that has been most commendable. The class-tree that adorns the grounds of nearly every one of our colleges and other institutions of learning, some that have stood for half a century or more, are held in sacred veneration by the graduates of those institutions ever afterwards.

Who shall say that the boys and girls of the primary and intermediate schools who have aided in the planting of their class-trees will not ever after cherish pleasant recollections of this chapter of their school-day life, and also that these early impressions will lead to higher appreciation of the value of trees for shade or shelter, and closer acquaintance with the numberless varieties of plants, shrubs, vines or flowers that are adding so much to the pleasure and comfort of mankind, whether planted in garden or park, or growing in their natural wildness and beauty on roadside or in woodland or forest.

We are cognizant of the fact that our school-yards are limited in space and but little can be spared for this work, but is it asking too much that one-tenth of the area be appropriated to this work? And all this space can be taken in the borders or in the corners so as not to interfere with the playground, for no one would interfere with all that is necessary to develop the physical nature and the enjoyment of our outdoor games and pastimes. The open space allowed for this exercise and pleasure can be made much more enjoyable if protected by suitable shade which can be secured in a large measure by planting trees around and near the border-line of the enclosure; and as these trees will take room above the heads of the children, their available area for sport is not diminished in the If a strip varying in width from five to ten feet along the borders, or in close proximity to the building, can be taken for the dwarf growing trees and flowering shrubs, a most pleasing effect can be produced and the large variety to select from that are indigenous to this climate will afford a choice assortment of color in flower and leaf and continual bloom during the season.

We have reason to take pride in our finely constructed schoolbuildings, their pleasing architectural design and effect, their loca-

tion and adaptability for instructive purposes.

Let us hope that the work so happily inaugurated in our State Normal Schools of embellishing the grounds around them may continue, and that the inspiration of their Arbor Day observance may prove lasting, so that teachers who graduate therefrom, as well as those now in the service, may be earnestly devoted to their noble work till every schoolyard shall be made to possess, in small measure at least, these attractive surroundings that conduce to the greater refinement and higher moral sentiment of our children.

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